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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/517,059	03/02/2000	Douglas Streeter Daudelin	2925-322P	4432

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EXAMINER

GARY, ERIKA A

ART UNIT

PAPER NUMBER

2685

DATE MAILED: 12/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/517,059

Applicant(s)

DAUDELIN ET AL.

Examiner

Erika A. Gary

Art Unit

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 March 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 18-21 is/are rejected.
- 7) ☒ Claim(s) 3-17, and 22-25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilsenrath et al., US Patent Number 6,026,304.

Regarding claim 1, Hilsenrath discloses a method for monitoring where a subscriber station is operating, the method comprising: monitoring an operational composite fingerprint for the subscriber station [col. 4: lines 40-50]; and comparing the operational composite fingerprint to a characteristic composite fingerprint to determine where the subscriber station is operating [col. 4: lines 56-67].

What Hilsenrath does not specifically disclose is that the monitoring is done to determine if the subscriber station is in an authorized area. However, at the time of the invention, it would have been obvious to one of ordinary skill in the art to include this feature. The motivation for this modification, as suggested by Hilsenrath [col. 12: lines 64-66] would have been to track the subscriber station for location-based billing and/or prevention of cellular fraud by making sure the subscriber is in an authorized area.

Regarding claim 2, Hilsenrath discloses prior to the comparing step, the step of defining the characteristic composite fingerprint for the subscriber station associated with operating in an authorized area [col. 4: lines 58-62].

3. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilsenrath.

Regarding claim 18, Hilsenrath discloses a system for monitoring where a subscriber station is operating comprising: a monitor for monitoring an operational composite fingerprint for the subscriber station [col. 4: lines 40-50]; and a processor for comparing the operational composite fingerprint to a characteristic composite fingerprint to determine where the subscriber station is operating [col. 4: lines 56-67].

What Hilsenrath does not specifically disclose is that the monitoring is done to determine if the subscriber station is in an authorized area. However, at the time of the invention, it would have been obvious to one of ordinary skill in the art to include this feature. The motivation for this modification, as suggested by Hilsenrath [col. 12: lines 64-66] would have been to track the subscriber station for location-based billing and/or prevention of cellular fraud by making sure the subscriber is in an authorized area.

Regarding claim 19, Hilsenrath discloses a storage device for storing the characteristic composite fingerprint for a subscriber station associated with operating in an authorized area [col. 4: lines 56-62].

Regarding claim 20, Hilsenrath discloses an antenna monitor for monitoring the number of temporally offset receive signals, originating from a transmission of the

subscriber station, incident upon each distinct uplink antenna set of a base station [fig. 4: ref. 76; col. 6: lines 12-23].

Regarding claim 21, Hilsenrath discloses the monitor comprises a propagational delay measurer for measuring the propagational delays of temporally offset receive signals originating from a transmission of the subscriber station [col. 4: lines 48-50; col. 7: line 66 – col. 8: line 4].

#### ***Allowable Subject Matter***

4. Claims 3-17 and 22-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Regarding claims 3-6, and 22-25, prior art does not suggest or render obvious defining a characteristic composite fingerprint comprising organizing histograms of propagational delays, organizing a probability density function, or grouping propagational delay factors based on pseudo-random codes. Regarding claims 7-11, prior art does not suggest or render obvious incrementing antenna set counters and counter bins associated with corresponding observations in a first histogram of propagational delays and in a second histogram of antenna observations. Regarding claims 12-15, prior art does not suggest or render obvious determining whether a histogram of propagational delay factors fall within a propagational delay mask; and determining whether a histogram of measured observations of antenna sets fall within an antenna mask. Regarding claims 16 and 17, prior art does not suggest or render obvious determining if a second statistical

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representation exceeds a maximum outside prominent characteristic of measured observations of propagational delays.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rao et al., US Patent Number 6,269,246, disclose location determination using RF fingerprinting.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erika A. Gary whose telephone number is 703-308-0123. The examiner can normally be reached on Monday-Thursday: 7:30-5:00 and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 703-305-4385. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750 or to the 2600 Customer Service Office at 703-306-0377.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

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**or faxed to:**

(703) 872-9314 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal  
Drive Arlington, VA., Sixth Floor (Receptionist).

EAG  
December 17, 2002

  
**ERIKA GARY**  
**PATENT EXAMINER**